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(71) Applicant (for all designated States except US): **SHELL  
INTERNATIONALE RESEARCH MAATSCHAPPIJ  
B.V.** [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR  
The Hague (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BERGGREN**,  
Wouter, Detlof [NL/NL]; Badhuisweg 3, NL-1031 CM

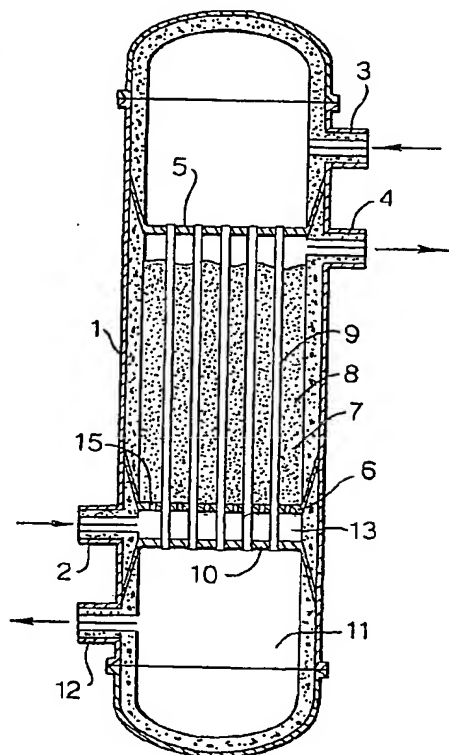
Amsterdam (NL). **VAN DONGEN**, Franciscus, Gerar-  
dus [NL/NL]; Badhuisweg 3, NL-1031 CM Amsterdam  
(NL). **TIO**, Thian, Hoey [NL/NL]; Badhuisweg 3,  
NL-1031 CM Amsterdam (NL). **ZUIDVELD**, Pieter,  
Lammert [NL/NL]; Badhuisweg 3, NL-1031 CM Ams-  
terdam (NL).

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(54) Title: REACTOR FOR PERFORMING A STEAM REFORMING REACTION AND A PROCESS TO PREPARE SYNTHESIS GAS



(57) Abstract: Reactor vessel for performing a steam reforming reaction comprising: a vessel inlet for natural gas and steam (2), a vessel inlet for a hot gaseous medium (3), a vessel outlet for a gaseous product comprising the steam reforming product (4), and a reactor space (7) comprising of a bed of steam reforming catalyst (8), which reactor space inlet is fluidly connected to the inlet for natural gas and steam and at its outlet end fluidly connected with the outlet for the gaseous product, wherein inside the catalyst bed a passageway (9) is provided fluidly connected to the vessel inlet for the hot gaseous medium for passage of hot gaseous mixture counter currently to the flow of reactants in the catalyst bed.



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